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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,202

12/31/2003

Everardo D. Ruiz

P18165

9189

28062

7590

10/05/2006

BUCKLEY, MASCHOFF, TALWALKAR LLC  
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NEW CANAAN, CT 06840

EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/750,202		RUIZ, EVERARDO D.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Dzung D. Tran		2613	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/31/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 10-13, 15 and 24 rejected under 35 U.S.C. 102(b) as being anticipated by Young et al. U.S. Patent no. 5,760,941.

Regarding claims 1, 10, 15 and 24, Young discloses an apparatus, comprising:

a multi-level symbol encoder 100 to receive display data and to generate multi-level symbols;

an optical link 82 coupled to the symbol encoder 100; and

a multi-level symbol decoder 130 coupled to the optical link 82 to receive the symbols and to re-create the display data.

Regarding claims 2 and 11, Young discloses wherein the symbol encoder and the symbol decoder as associated with at least one of: (i) multi-level amplitude symbols, (ii) multi-level phase symbols, and (iii) multi-level pulse width symbols (col. 25, lines 40-52)

Regarding claim 3, Young discloses wherein the optical link includes: a light source (Fig. 9, Optical source) coupled to the symbol encoder;

an optical waveguide 82 coupled to the light source; and

an optical receiver (photodetector 254, 256) coupled to the optical waveguide and to the symbol decoder.

Regarding claim 4, Young discloses wherein the light source is a laser diode (col. 25, line 12), the optical waveguide is a fiber optic cable 82, and the optical receiver (photodetector 254, 256) is a positive, intrinsic, negative diode.

Regarding claims 6, 12 and 13, Young discloses wherein the symbol encoder receives the display data from at least one of: (i) a processor, (ii) a chipset, (iii) a low voltage differential signaling interface, (iv) a graphics array interface, and (v) a digital video out interface (col. 10, lines 15-27).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 7-9, 14, 16-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. U.S. Patent no. 5,760,941 in view of Tani et al. U.S. Patent no. 5,793,031.

Regarding claims 7, 14, 16 and 22, Young does not specifically disclose the apparatus comprising a display device to receive the display data from the symbol

decoder. Tani, from the same field of endeavor, discloses in Figure 1, a symbol reading device comprising a display device 20 to receive the display data from the symbol decoder (col. 7, lines 43-47). At the time of the invention was made, it would have been obvious to an artisan to include the display device 20 taught by Tani in the apparatus of Young. One of ordinary skill in the art would have been motivated to do that in order to monitor or read the image of the data symbol.

Regarding claims 8 and 20, Tani discloses wherein the display device comprises one of: (i) a liquid-crystal display device, (ii) a light-emitting diode display device, (iii) a gas-plasma display device, (iv) a cathode ray tube display device, (v) a field emission device, (vi) a flat panel device, and/or (vii) a passive transmissive device (col. 7, lines 43-47).

Regarding claim 5, Tani discloses an amplifier (Fig. 3, element 8) coupled between the optical receiver and the symbol decoder

Regarding claims 9 and 25-27, Tani discloses the symbol encoder is housed in a first portion of a mobile computer, the symbol decoder is housed in a second portion of the mobile computer, and the first and second portions are movably coupled (see Fig. 3).

Regarding claims 17-19, 21, Tani discloses in Figure 3, an apparatus, comprising: a first portion, the first portion housing:

a keyboard, a processor (e.g., computer 32), and a multi-level symbol encoder 31 to receive display data generated by the processor and to generate multi-level symbols; and

a second portion, the second portion housing: a multi-level symbol decoder to receive the symbols and to re-create the display data, and a display device 20 to receive the re-created display data

Regarding claim 23, Young discloses wherein the optical link includes: a light source (Fig. 9, Optical source) coupled to the symbol encoder;

an optical waveguide 82 coupled to the light source; and

an optical receiver (photodetector 254, 256) coupled to the optical waveguide and to the symbol decoder.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Jarchi et al. U.S. Publication no. 2003/0106013. Architecture for multi symbol encoding and decoding
- b. Agazzi U.S. Patent no. 6,879,640. Method and apparatus for high speed transmission on fiber optic channel
- c. obakht U.S. Patent no. 6,009,120. Multi-dimensional combined equalizer and decoder

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran  
09/26/2006



DZUNG TRAN  
PRIMARY PATENT EXAMINER